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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/890,027	07/24/2001	Shigeru Kobayashi	11694-04132	6050

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EXAMINER

LAZOR, MICHELLE A

ART UNIT

PAPER NUMBER

1734

DATE MAILED: 04/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/890,027

Applicant(s)

KOBAYASHI ET AL.

Examiner

Michelle A Lazor

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) 10 and 11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: .

DETAILED ACTION

Claim Objections

1. The claims are objected to because they include reference characters which are not enclosed within parentheses.

Reference characters corresponding to elements recited in the detailed description of the drawings and used in conjunction with the recitation of the same element or group of elements in the claims should be enclosed within parentheses so as to avoid confusion with other numbers or characters which may appear in the claims. See MPEP § 608.01(m).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 – 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carbonetti, Jr. et al. (U.S. Patent No. 3674207) in view of Shaffer (U.S. Patent No. 4232055).

Regarding Claim 1, Carbonetti, Jr. et al. disclose a color changing apparatus wherein a pipe joint or connector (15) is provided to be movable on a guide rail or carriage bar (20) and a spray device connected to the connector (15) through a pipeline or hose (16) are provided; as well as a plurality of coating material supply circulation

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circuits are provided which each have a pipe joint or coupling capability disengageably engaged with the connector (15) (Figure 2; column 2, lines 2 – 14), but do not specifically disclose each material supply circulation circuit to include a liquid tank and a pump, as well as an electrostatic spray device. However, Shaffer discloses a plurality of coating material supply circulation circuits which each include a liquid tank (54) and a pump (57) (Figures 1 and 3; column 4, line 54 – column 5, line 8), as well as an electrostatic spray device (39) (column 3, lines 37 – 42). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use a tank and a pump for each of the coating material supply circulation circuits to appropriately contain the coating material and adequately supply the material to the spray device. It would also have been obvious to one of ordinary skill in the art at the time of the invention to use an electrostatic spray device to produce a more uniform coating on irregular surfaces and reduce the amount of paint needed to coat a workpiece (column 1, lines 10 – 25).

Regarding Claims 2 and 5, Shaffer discloses at least one of said liquid tanks for holding a source of electrically conductive, coating material (column 2, lines 62 – 66), said at least one liquid tank being selectively electrically insulable from ground and selectively groundable (column 4, lines 10 – 53). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to selectively electrically insulate from ground and selectively ground at least one of said liquid tanks to perform maintenance work on the tanks (column 1, lines 26 – 48).

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Regarding Claims 3 and 4, Shaffer discloses a power supply (39) and a voltage block which electrically isolates said liquid tank which is transmitting the electrically conductive coating material to said spray device from electrical ground; wherein said voltage block electrically isolates from said spray device said liquid tanks which are not transmitting coating material to said spray device (Figure 3; column 4, lines 27 – 54). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize a power supply in order to electrostatically spray the desired paint, and it would have been obvious to use a voltage block wherein said voltage block electrically isolates from said spray device said liquid tanks which are not transmitting coating material to said spray device to perform maintenance work on the tanks (column 1, lines 26 – 48).

Regarding Claim 6, Carbonetti, Jr. et al. disclose a drive for moving the guide rail (24) (Figure 2; column 2, lines 24 – 31).

4. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Carbonetti, Jr. et al. and Shaffer as applied to Claims 1 and 6 above, in view of Marietta et al. (U.S. Patent No. 4616782).

Carbonetti, Jr. et al. and Shaffer disclose all of the limitations of Claims 1 and 6, but do not disclose a hydraulic operable cylinder as the drive. However, Marietta et al. teach using a hydraulic operable cylinder as a drive (column 7, lines 24 – 33).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use a hydraulic operable cylinder since it is well known and conventional to use a hydraulic cylinder as a drive to move objects, such as a guide rail.

5. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Carbonetti, Jr. et al. and Shaffer as applied to Claim 1 above, in view of Matsushita et al. (U.S. Patent No. 5152466).

Carbonetti, Jr. et al. and Shaffer disclose all of the limitations of Claim 1, but do not disclose a check valve, such that coating material flow is allowed when the pipe joint is connected with a respective said pipe joint and coating material flow is automatically stopped when the respective connected pipe joints are disconnected. However, Matsushita et al. teach using a check valve (column 4, lines 57 – 61). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use a check valve to avoid spilling any coating material when changing from one coating material to another.

6. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Carbonetti, Jr. et al. and Shaffer as applied to Claim 1 above, in view of Platsch (U.S. Patent No. 5989344).

Carbonetti, Jr. et al. and Shaffer disclose all of the limitations of Claim 1 including a circulation valve or pilot valves (16, 19, 22, and 25) (Shaffer; column 3, lines 17 – 36), but do not disclose each supply circulation circuit further comprising a pressure adjusting valve. However, Platsch teaches using a pressure adjusting valve (column 2, lines 51 – 58). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use a circulation valve to maintain circulation of the liquid when the tank is on stand-by mode (Shaffer, column 4, lines 54 – 66), as well as it

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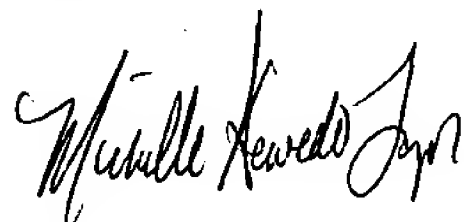
would have been obvious to use a pressure adjusting valve to keep constant the amount of liquid supplied to the sprayer (column 2, lines 51 – 54).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michelle A Lazor whose telephone number is 703-305-7976. The examiner can normally be reached on Mon - Thurs 6:30 - 4:00, Fridays 6:30 - 3:00.

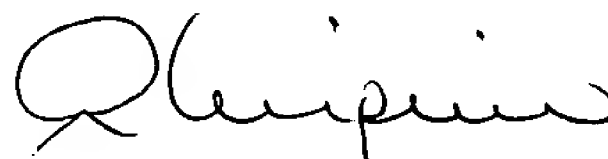
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 703-308-3853. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



MAL

April 21, 2003



RICHARD CRISPINO
SUPERVISORY PATENT EXAMINER
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